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*Ans*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,545	03/20/2001	Bruce D. Melick	P04409US1	2555

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MCKEE, VOORHEES & SEASE, P.L.C.  
801 GRAND AVENUE  
SUITE 3200  
DES MOINES, IA 50309-2721

EXAMINER

SEDIGHIAN, REZA

ART UNIT	PAPER NUMBER
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2633

*B*

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/812,545

**Applicant(s)**

MELICK ET AL.

**Examiner**

M. R. Sedighian

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 5-18, 20, 32-37 and 51-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 19, 21-31, 38-50 and 57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6, 7.                      6) ☐ Other:

1. This communication is responsive to applicant's 6/22/04 amendments in the application of Melick et al. filed 3/20/01. The amendments have been entered. Claims 1-4, 19, 21-31, 38-50, and 57, related to Species I are now examined.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a transmitter for transmitting the variable characteristic transmission pulses" and "transmitting variable duration pulses of light from a transmitter over a fiber optic cable and receiving the variable duration light pulses in a receiver" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 28-31 and 47-50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specification does not clearly describe about transforming the bits of data into transmission pulse of electrical energy, or pulse of light, wherein the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which corresponds to the bits of data. Thus specification fails to enable a person skilled in the art to make and use the claimed invention as recited in claims 28-31 and 47-50.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 28-31, 44, and 47-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 28, it is not clear what is meant by "...transforming the bits of data into a transmission pulse of light, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which corresponds to the bits of data; ".

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As to claims 29, 44, and 48, it is not clear what is meant by "... the transmission pulse characteristics corresponds to a number base higher than 2". What does it mean by the transmission pulse having a characteristics that corresponds to a number base higher than 2??

As to claim 47, it is not clear what is meant by "...transforming the bits of data into a transmission pulse of electrical energy, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which corresponds to the bits of data; "

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4, 19, 21-28, 30-31, 38-43, 45-47, 49-50, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Cox et al. (US Patent No: 5,050,189).

Regarding claims 1, 19, 21, 23, 38, 57, and 28, 47, as it is understood in view of the above 112 problems, Cox teaches a method of transmitting data (col. 1, lines 5-10 and 10, fig. 1), comprising: receiving a digital bit of data (col. 5, lines 60-63, col. 6, lines 1-3) from a memory unit (28, fig. 1 and col. 7, lines 39-53); transforming (34, fig. 1) the bit of data into a transmission pulse (col. 7, lines 64-68, col. 8, lines 1-4 and 20, figs. 2, 4, 5), the transmission pulse having a pulse characteristic selected from a set of three or more predetermined pulse characteristics (col. 8, lines 5, 16, 34 and 22, fig. 2, note that pulse 20 has a pulse duration, or an interval 22, shown in fig. 2), one of which is corresponding to the bit of data (col. 8, lines 15-21,

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32-35); and transmitting the transmission pulse (20, figs. 2, 4, 5) over a guided medium (14, fig. 1 and col. 8, line 25). As to claims 19 and 28, Cox further teaches transmitting the pulse signal as a pulse of light (col. 8, lines 22-31) from the transmitter to a receiver (col. 5, lines 29-48) over a fiber optic cable (col. 8, lines 32).

Regarding claim 2, Cox teaches the pulse characteristic corresponds to numbers 0 through 9 (col. 6, lines 33-48).

Regarding claims 3, 30, and 49, Cox teaches the data is in the form of universal character encoding (col. 6, lines 38-40).

Regarding claims 4, 31, and 50, Cox teaches receiving the transmission pulse from the guided medium (col. 5, lines 35-37); and transforming the transmission pulse into a digital bit of data (col. 5, lines 37-40).

Regarding claims 22 and 25-26, Cox further teaches the transmission pulse can be transmitted as a pulse of light (col. 8, lines 30-31) and the pulse of light can be transmitted over a fiber medium (col. 8, line 32).

Regarding claim 24, Cox teaches the pulse characteristics are pulse durations (col. 6, lines 19-21, col. 8, line 11 and 22, fig. 2).

Regarding claim 27, Cox teaches the pulse characteristic is a pulse position (col. 8, lines 32-35).

Regarding claim 39, Cox teaches the transmission pulse characteristics corresponding to the bits of data is the transmission pulses position in time (figure 2 shows transmission pulses 20 that are positioned or repeated at time intervals 22).

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Regarding claim 40, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the duration between transmission pulses (col. 8, lines 5-13).

Regarding claim 41, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the amplitude of the transmission pulse (col. 8, lines 32-35).

Regarding claim 42, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the duration of the transmission pulses (col. 8, line 11).

Regarding claim 43, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the phase of the transmission pulses (col. 8, line 34).

Regarding claim 45, Cox teaches the data is in the form of universal character encoding (col. 6, lines 38-40).

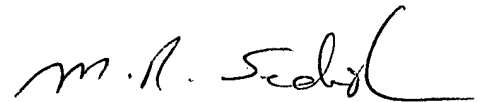
Regarding claim 46, Cox teaches receiving the transmission pulse from the guided medium (col. 5, lines 35-37); and transforming the transmission pulse into a digital bits of data corresponding to the specific characteristics of the transmission pulse (col. 5, lines 37-40).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (703) 308-9063.

The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**M. R. SEDIGHIAN**  
**PRIMARY EXAMINER**